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## NEW BUTTERFLIES FROM THE KIGOMA AREA OF WESTERN TANGANYIKA

By

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A large collection of Lepidoptera from Kabogo Head, south of Kigoma, on the eastern shore of Lake Tanganyika has been submitted for identification by Dr. J. Itani and Mr. S. Azuma of the Kyoto University Primate Research Expedition.

The material examined so far was collected during the years 1961, 62 and 63 and a comprehensive account of the Lepidoptera of Kabogo Head will be published when the expedition has completed its field work in Africa. In the meantime some general notes on the Lepidopterous fauna of the area, together with the description of some new forms, would appear desirable.

The bulk of the collection has been assembled near a stream which runs into Lake Tanganyika between Kigoma and the Kungwe Mahare Mountains. There is some riverine forest on the banks of the stream, but the surrounding country is mainly Brachystegia woodland. The altitude is approximately 800 m. above sea level and the latitude about 5. 6' South.

The material collected so far is a surprising mixture of eastern and western elements as well as including many of the species characteristic of Brachystegia woodland which also occur in Angola, Katanga, N. Rhodesia and southern Tanganyika.

There are also a number of new, very distinct and apparently endemic species and subspecies, some of which are described below.

The following are some of the more interesting eastern species and subspecies which have turned up at Kabogo Head:

Charaxes protoclea azota Hewitson  
Charaxes pythodorus nesaea Grose-Smith  
Charaxes brutus natalensis Staudinger  
Precis natalica natalica Felder  
Graphium porthaon Hewitson  
Papilio ophidicephalus ophidicephalus Oberthür  
Coeliades sejuncta Mabille & Vuillet

There is a large number of species typical of the equatorial forest of the Congo and West Africa; the following have not been previously recorded from any part of East Africa, not even from Uganda, which is very rich in Congo species:

Palla publius Staudinger  
Bematistes vestalis congoensis Le Doux  
Bematistes epiprotea Butler

NOTE: In the following text, the initials K.U.A.P.E. are an abbreviation of "Kyoto University African Primate Expedition".

CHARAXES ZELICA Butler, TOYOSHIMAI ssp. nov.  
(Nymphalidae, Charaxidinae)

MALE

Size and shape, as in nominate race.

Upperside

Similar to nominate race, but all blue spots very much larger, particularly in hindwing. Some specimens have narrow subterminal blue streaks in internervular spaces of hindwing, especially near tornus.

Underside

As in nominate race.

FEMALE

Unknown.

Holotype ♂ Makuyu, Kigoma, Tanganyika, XII-1961. K.U.A.P.E. to be deposited in British Museum (Nat.Hist.)

Paratype ♂♂. Five, same data as above, to be deposited in Coryndon Museum and in Kyoto University.

This subspecies is dedicated to Mr. A.K. Toyoshima of K.U.A.P.E.

Ch. zelica toyoshimai has so far only been taken on the eastern shore of Lake Tanganyika, which must be near the south-eastern limit of the range of this species.

CYMOTHOË LURIDA Butler, AZUMAI ssp. nov.  
(Nymphalidae, Nymphalinae)

MALE

Almost identical to C. lurida tristis Overlaet, described from the eastern Congo, but clearer and paler ground colour, dark marginal markings slightly reduced.

FEMALE

Upperside

Darker than ssp. tristis Ov. and ssp. butleri Grünberg. Orange brown marginal areas of hindwing almost completely eclipsed by extension of dark brown basal-discal area. White markings of forewing much broader, clearer and more conspicuous than in other races.

Underside

Variable in both sexes, as in other races.

Holotype ♂. Makuyu, Kigoma, Tanganyika. XII-1961, K.U.A.P.E.

Allotype ♀. Same data as above.

Two Paratype ♂♂ and two Paratype ♀♀, same data as above, to be deposited in Coryndon Museum and Kyoto University.

Holotype and Allotype to be deposited in British Museum (Nat.Hist.).

This subspecies is dedicated to Mr. S. Azuma of K.U.A.P.E.

DIESTOGYNA ITANII sp. nov. (Nymphalidae, Nymphalinae)

Closely allied to D. barombina Aurivillius and to D. incerta Aurivillius from which it differs in the greater development of the pale markings in the forewing above and in the dark blue areas being replaced by slate-purple (R)\*. The female is not of the barombina type, but is very similar to that of D. saphirina Karsch.

**MALE**

Antennae. Blackish brown above, tipped with red brown, ferruginous below.

Head and Body. Uniform blackish brown above, sayal brown (R) below.

Legs. Sayal brown (R).

Upperside

Forewing. Ground colour dark blackish brown with dark slate-purple (R) wash, occupying basal 2/3 of wing. Four narrow, irregular pale pinkish violet lines across cell, from costa to cubitus, with a somewhat ochreous tinge near costa; a similar such line closing discoidal cell; a diffuse pale violet line from origin of vein 2 to inner margin at 1/3 from base. A series of diffuse pale violet internervular lunules edged proximally with black, somewhat more distinct and ochreous near costa, forming an evenly curved postmedial band from costa to inner margin with slight indentations at veins 2, 3 and 4 and in cellule lb. A series of small internervular whitish dots edged distally with black between postmedial band and margin, well defined at costa and in cellules 3, 4 and 5, obsolescent elsewhere, the one in 5 being placed nearer to outer margin than remainder. A broad, straight submarginal row of diffuse blackish internervular spots from apex to tornus. Cilia blackish brown, tipped with white at apex, tornus and between ends of veins.

Hindwing. Ground colour as above, slightly paler and sometimes rufous in upper portion of cell and at base of costa. Dark slate-purple (R) wash from base of discoidal cell to postdiscal area between abdominal fold and vein 5. Faint blackish spot in centre of cell; a faint narrow dark line parallel and proximal to outer edge of cell; a second similar line parallel and distal to outer edge of cell. A darker, more diffuse medial line from costa to vein 2. Occasionally a very faint, diffuse rufous spot in base of cellule 4. Two postdiscal rows of faint blackish internervular spots. Abdominal fold dark brown. Cilia uniformly blackish brown.

Underside

Almost identical to D. barombina Aurivillius.

Forewing. Ground colour sayal brown (R) to Verona brown (R). Markings in cell as above, forming two narrow dark brown more or less reniform rings surrounded by whitish scales, particularly near costa. Postmedial band same shape as above, dark brown and narrow with broad whitish distal edge, particularly in cellules 4, 5 and 6. A row of dark brown internervular dots from cellule lb to cellule 6, edged proximally with whitish scales; a whitish dot at costa halfway from postmedial band to apex. A submarginal series of internervular dark brown arrow shaped markings with apex pointing outwards, from cellule lb to apex. Ground colour outside postmedial band, from vein 3 to inner margin darker (Saccardo's umber (R)) than elsewhere. Cilia as above.

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\* Colours marked (R) are taken from Ridgway's "Color standards and Color nomenclature".

Hindwing. Ground colour sayal brown (R) to Verona brown (R), somewhat darker and brighter than forewing. A faint buff spot near base of cellule 7. A small narrow blackish ring above centre of discoidal cell surrounded by buff scales and surmounted distally by a cinnamon buff (R) spot. A diffuse buff spot, mixed distally with dark brown scales near base of cellule 1c. A narrow blackish line forming an irregular curve from vein 8 to 1a enclosing basal third of wing strongly angled distad at veins 5, 2 and 1b. A faint paler area immediately outside blackish line in cellules 6 and 7; a prominent triangular blackish spot with diffuse distal margins with base resting on outer edge of blackish line in base of cellules 4 and 5. Some blackish scales outside blackish line in cellules 2 and 3 and a diffuse whitish spot mixed distally with blackish scales outside blackish line in cellule 1c. A complete, evenly curved series of black internervular streaks edged proximally with a few paler scales from vein 8 to vein 1b, followed distally by a parallel series of submarginal blackish arrow-shaped markings, as in forewing. Cilia uniformly dark brown. The markings of the underside correspond very closely with those of the upperside.

Measurements. Forewing, base to apex 23 - 26 mm.

Genitalia. Uncus bifid, valves simple, elongated and hairy, as in other members of the genus.

#### FEMALE

Very similar to the ♀ of D. saphirina Karsch, but differs above in the darker tinge of the brown ground colour, in the paler, less ochreous tinge of the light markings, in the white postdiscal spots of the forewing being larger and better defined, in the absence of the ochreous streaks and suffusion which invade much of the dark brown ground colour in saphirina, and in the smaller size of the postdiscal series of brown spots in the hindwing.

Antennae. As in male.

Body. Blackish brown above, with some pale olive brown scales and hairs; below as in male, but paler.

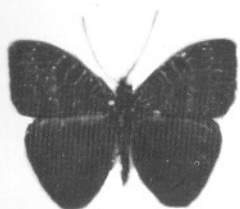
Legs. As in male, but paler.

#### Upperside.

Forewing. Ground colour clove brown (R). Five narrow irregular ivory yellow (R) lines from cubitus to costa. A broad, fairly straight and regular ivory yellow band from costa to vein 2, with inner edge somewhat displaced towards outer margin in cellule 2. A faint, pale, narrow, irregular suffused line from cubitus to inner margin at  $\frac{1}{4}$  from base. A more pronounced, irregular pale band sharply defined proximally from vein 2 to inner margin, halfway from base. A curved series of prominent whitish dots in cellules 3, 4, 5, 6 and 7. A faint, regular, dark brown submarginal band somewhat constricted at the veins, from apex to tornus.

Hindwing. An olive brown (R) area with regular edges occupies basal third of wing and encloses a faint crescent edged with ivory yellow which closes discoidal cell. Discal area, from dark basal area to submarginal series of dark brown lunules, ivory yellow except in areas 1b and 1c, where brown marginal band invades pale discal area. A postdiscal series of rather diffuse internervular dark brown spots, evenly curved from vein 1b to vein 8; a submarginal series of dark brown internervular crescentic markings. Marginal band clove brown (R), but paler than in forewing.

# New Butterflies from Kigoma



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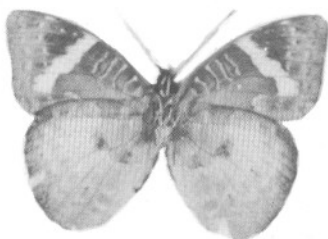
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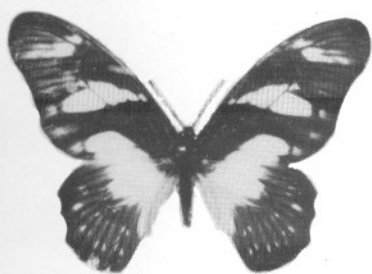
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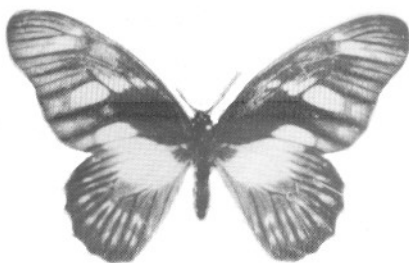
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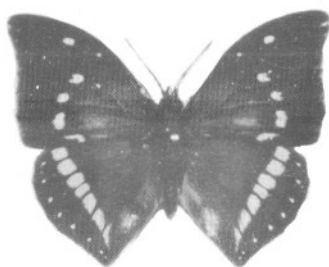
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1. *Diestogyna itanii* ♂ (upperside). 2. *D.itanii* ♂ (underside).
3. *Amauris egialea makuyuensis* ♂ (upperside).
4. *Diestogyna itanii* ♀ (upperside). 5. *D.itanii* ♀ (underside).
6. *Cymothoë lurida azumai* ♀ (upperside).
7. *Graphium almansor kigoma* ♂. 8. *G.almansor kigoma* ♀.
9. *Charaxes zelica toyoshimai* ♂ (upperside)

(reduced by 2/3)

New Butterflies from Kigoma

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Underside.

Similar to ♂, but much paler. A broad diagonal whitish band from costa to vein 2 of forewing.

Hindwing. Very similar to that of D. saphirina Karsch ♀, but distal margin of basal area somewhat more evenly curved.

Measurements. Forewing, from base to apex, 28 - 31 mm.

Holotype ♂. Makuyu, Kigoma, Tanganyika, XI-1961, K.U.A.P.E.

Allotype ♀. Makuyu, Kigoma, Tanganyika, V-1962, K.U.A.P.E.

Four Paratype ♂♂ and three Paratype ♀♀, same data as above, to be deposited in Coryndon Museum and Kyoto University.

Holotype and Allotype to be deposited in British Museum (Nat.Hist)

This species is dedicated to Dr. J. Itani of Kyoto University.

AMAUROS EGIALEA Cramer, MAKUYUENSIS ssp. nov. (Danaiidae)

MALE

Similar to A. egialea hyalites Butler, described from Angola, but differs in having smaller subapical white spots and much more restricted white discal area in hindwing.

FEMALE

Unknown.

Holotype ♂. Makuyu, Kigoma, Tanganyika, II-1962, to be deposited in British Museum (Nat.Hist.).

One Paratype ♂ same data as above, to be deposited in Coryndon Museum, Nairobi.

GRAPHIUM ALMANSOR Honrath, kigoma ssp. nov.  
(Papilionidae, Papilioninae)

A very distinct, though variable subspecies, apparently confined to the Kigoma area.

Much larger than other races, approaching the form poggianus Honrath of G. almansor almansor in the shape and development of the pale markings.

MALE

Upperside

Forewing. Pale markings white, not ochreous as in ssp. uganda Lathy. Subapical markings well developed and confluent, as in form poggianus Honrath, not split into three narrow streaks as in ssp. uganda, ssp. escherichi Gaede, ssp. almansor and ssp. carchedonius Karsch. A small white spot near apex of discoidal cell present in some specimens. Large white spot in centre of discoidal cell always contiguous with white spot in cellule 3, triangular, tapering towards costa, sometimes not reaching it, with apex often broken off to form a small separate spot. In almansor and carchedonius this spot usually reaches costa, but not the cubitus, being separated from the spot in 3 by a broad dark streak. Light spots in 1a and 1b very large. Light spot in 2 small or absent, being well developed in only one individual examined. Spot in 3 always very large and always reaching cubitus. Spot in 4 small or absent. Occasionally traces of submarginal spots in 1b, 2 and 3.

Hindwing. Pale discal area more restricted than in other races, only reaching distal quarter of discoidal cell. Distal margin of pale area irregular but well defined, never smudged along the veins. Twin pale postdiscal streaks in cellules 2,3,4 and 5 small or absent, pale submarginal spots usually absent, sometimes represented by traces. Occasionally a diffuse red spot at edge of pale discal area between dark internervular streaks in cellules 6 and 7.

Underside

As in other races. Red basal area and black basal dots always well developed.

Measurements. Forewing, base to apex, 39 - 44 mm.

FEMALE

Similar to male, but wings more rounded, ground colour paler.

Measurements. Forewing, base to apex, 46 mm.

Holotype ♂. Makuyu, Kigoma, Tanganyika, I-1962, K.U.A.P.E.

Allotype ♀. Makuyu, Kigoma, Tanganyika, V-1962, K.U.A.P.E.

Eight Paratype ♂ and one Paratype ♀, data as above, to be deposited in Kyoto University, Coryndon Museum and British Museum (Nat.Hist.).

Holotype and Allotype to be deposited in British Museum.

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NEW AFRICAN BUTTERFLIES

By

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YPTHIMA RHODESIANA Carcasson (Coryndon Mem.Mus.Oc.Pap. No. 7, 1961)  
(Satyridae, Satyrinae)

Several more specimens of this species were collected recently in the Mpanda district of western Tanganyika by Mr.J. Kielland of Oldeani, Tanganyika. They belong to the wet season form and are considerably darker and brighter than the Holotype. This small series includes a specimen of the hitherto unknown female which is described below.

FEMALE

Wings more rounded than male. Head, body and legs as in Holotype, but a little darker.

Upperside.

Ground colour darker and glossier than in Holotype, with a faint coppery tinge in some lights. Outer ring enclosing ocellus of forewing very distinct, pointed towards tornus, reaching cellule 1b. Area enclosed by outer ring somewhat paler than remainder of wing. Distal edge of outer ring parallel with outer margin. Dark submarginal and marginal lines of hindwing better defined than in Holotype. A faint, dark evenly curved medial line from vein 2 to vein 6 of hindwing.